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A.D. 1871,      *2nd JUNE.*      N<sup>o</sup> 1469.

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S P E C I F I C A T I O N

OF

ADOLPHUS VIDEKY.

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SEPARATING SOLID FROM LIQUID  
EXCRETA.

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L O N D O N :

PRINTED BY GEORGE E. KYRE AND WILLIAM SPOTTISWOODE,

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A.D. 1871, *2nd JUNE.* N° 1469.

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**Separating Solid from Liquid Excreta.**

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**LETTERS PATENT** to Adolphus Videky, of Islington, in the County of Middlesex, for the Invention of "**IMPROVEMENTS IN SEPARATING EXCREMENT FROM URINE AND WATER, AND IN APPARATUS CONNECTED THEREWITH.**"—A communication from abroad by Hyppolite Mayrargues, of Venice, Italy.

Sealed the 28th November 1871, and dated the 2nd June 1871.

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**PROVISIONAL SPECIFICATION** left by the said Adolphus Videky at the Office of the Commissioners of Patents, with his Petition, on the 2nd June 1871.

I, ADOLPHUS VIDEKY, of Islington, in the County of Middlesex, do  
5 hereby declare the nature of the said Invention for "**IMPROVEMENTS IN SEPARATING EXCREMENT FROM URINE AND WATER, AND IN APPARATUS CONNECTED THEREWITH,**" (a communication to me from abroad by Hyppolite Mayrargues, of Venice, Italy,) to be as follows :—

The object of this Invention is to divide excrement from urine and  
10 water. For this purpose I employ a bent or undulating tube or tubes, pipe or pipes, leading from the closet or privy, and having by preference several bends in it.



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*Videky's Improvements in Separating Solid from Liquid Excreta.*

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The object of employing a bent tube or pipe to receive the excrement, urine, and water is because liquids will travel over the surface thereof and follow its course freely, but solids in passing along or falling through it have impediments in the way by reason of the curved surface or surfaces they are compelled to pass before passing through the pipe. 5

At or near one end of the bent tube I place a valve which is free to open downwards on receiving a certain weight, but through which liquids can pass when no weight is on the valve even when the valve is closed. For this purpose there are indentations or apertures at or near the edges of the valve, or the edges are serrated or notched or 10 bent, or the valve is curved so that liquid touching it has always a tendency to run off between it and the walls of the pipe. A weighted lever keeps the valve closed until there is sufficient weight on it to counteract the balance when it opens, and the solid matter falls through the valve, closing immediately afterwards by reason of the weighted 15 lever. Below the valve the passage is gradually enlarged, and the urine or other liquid which uninterruptedly runs down the walls from the bent tube above is collected therein, and is led off therefrom by pipes to a receiver; below the valve there is another pipe, the diameter of which should be very little more than the diameter of the valve, and this pipe 20 receives the solids directly from the valve above and conveys them to any suitable receptacle. Thus the liquid matters, whether they be water, urine, or a mixture thereof, first travel down the surface or surfaces of the bent pipe, and after passing through or by the valve they continue their course along the gradually enlarging surface below 25 into the enlarged chamber, and are thence conveyed away to suitable receivers or are allowed to run away to drains or otherwise, as desired, but the solid matter in its passage through the bent pipe coming in contact with the curves or undulations its course is somewhat arrested (by its natural tendency to adhere in some measure to the walls) until 30 it reaches the valve, which opening it falls straight into the receiver below, or in other words, the liquid first goes into one receiver and the solid follows into another receiver. The receiver being full of solid matter is removed and closed hermetically by a lid, and its place is taken by another empty receiver.



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**SPECIFICATION** in pursuance of the conditions of the Letters Patent, filed by the said Adolphus Videky in the Great Seal Patent Office on the 2nd December 1871.

**TO ALL TO WHOM THESE PRESENTS SHALL COME, I, ADOLPHUS**  
5 **VIDEKY**, of Islington, in the County of Middlesex, send greeting.

**WHEREAS** Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Second day of June, in the year of our Lord One thousand eight hundred and seventy-one, in the thirty-fourth year of Her reign, did, for Herself, Her heirs and successors,  
10 give and grant unto me, the said Adolphus Videky, Her special licence that I, the said Adolphus Videky, my executors, administrators, and assigns, or such others as I, the said Adolphus Videky, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term  
15 therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "**IMPROVEMENTS IN SEPARATING EXCREMENT FROM URINE AND WATER, AND IN APPARATUS CONNECTED THEREWITH,**" (a communication to me from abroad by Hyppolite  
20 Mayrargues, of Venice, Italy,) upon the condition (amongst others) that I, the said Adolphus Videky, my executors or administrators, by an instrument in writing, under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and  
25 cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

**NOW KNOW YE**, that I, the said Adolphus Videky, do hereby declare the nature of the said Invention, and in what manner the same is to  
30 be performed, to be particularly described and ascertained in and by the following statement, reference being had to the accompanying Drawing, and to the letters of reference marked thereon, that is to say :—

The object of this Invention is to divide excrement from urine and water. For this purpose I employ a bent or undulating tube or tubes,



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pipe or pipes, leading from the closet or privy, and having by preference several bends in it.

The object of employing a bent tube or pipe to receive the excrement, urine, and water is because liquids will travel over the surface thereof and follow its course freely, but solids in passing along or falling through it 5 have impediments in the way by reason of the curved surface or surfaces they are compelled to pass before getting through the pipe. At or near one end of the bent tube I place a valve which is free to open downwards on receiving a certain weight, but through which liquids can pass when no weight is on the valve, even when the valve is closed. For this 10 purpose there are indentations or apertures at or near the edges of the valve, or the edges are serrated or notched or bent, or the valve is curved so that liquid touching it has always a tendency to run off between it and the walls of the pipe. A weighted lever keeps the valve closed until there is sufficient weight on it to counteract the balance when it opens 15 and the solid matter falls through, the valve closing immediately afterwards by reason of the weighted lever. Below the valve the passage is gradually enlarged, and the urine or other liquid which uninterruptedly runs down the walls from the bent tube above is collected therein, and is led off therefrom by pipes to a receiver; below the valve there is 20 another pipe, the diameter of which should be very little more than the diameter of the valve, and this pipe receives the solids directly from the valve above and conveys them to any suitable receptacle.

The accompany Drawing illustrates the manner in which the Invention may be carried into effect. 25

*a* is the tube leading from the closet, which may be bent more or less as found most suitable, but it is essential that this tube *a* should be curved or bent for the purposes of the Invention; *b* is the valve at the lower end of the tube *a*; *c* is a weighted lever connected to and supporting the valve *b*; *e* is another tube or hopper immediately below 30 the valve *b* leading to a vessel *f*, which is placed below the tube *e*, but which can be easily removed from that position when required; *g* is another valve similar to the valve *b*, but which is sometimes dispensed with as the apparatus is effective without it, although in some cases it is found advisable to use it, the valve *b* may also in some cases be 35 dispensed with; *h* is the enlarged part below the valve *b*; *i* is the basin or vessel for the reception of the liquid; and *k* is the pipe for carrying it off to any desired place or receptacle.



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The Invention is here shewn applied to a closet situated at one side of the vessel or receptacle *f*, but it may, where found convenient, be placed immediately above the same, the number of bends in the pipe *a* being regulated by the distance of the closet from the receptacle.

5 The action is as follows :—The liquid matters from the closet, whether they be water, urine, or a mixture thereof, are the first to travel down the surface or surfaces of the bent pipe *a*, and after passing through or by the valve *b* they continue their course along the gradually enlarging surface *h* below into the enlarged chamber *i*, and are thence conveyed  
10 away by the pipe *k* to suitable receivers, or are allowed to run away to drains or otherwise as desired; the solid matter in its passage through the bent pipe *a* comes in contact with the curves or undulations, whereby its course is somewhat arrested (by its natural tendency to adhere in some measure to the walls) until it reaches the valve *b*, which when  
15 sufficient load is upon it opens, and the solid matter falls straight into the pipe *e*, and thence by the valve *g* to the receiver below, or in other words the liquid first goes into one receiver and the solid follows into another receiver. I prefer to make the pipes of cast iron, because the urine in passing over the surface thereof glazes the same,  
20 and so clears the way, as it were, for the solid matter which has to follow, but of course the pipes may be made of other material, such as earthenware. The receiver being full of solid matter is removed and closed hermetically by a lid, and its place is taken by another empty receiver.

25 Having now described the nature of my said Invention, and in what manner the same is to be performed, I declare that I do not limit myself to the precise arrangement or arrangements herein-before described for carrying the Invention into effect, but what I do claim is,—

First. The separating or dividing of solid from liquid excrement by  
30 the employment of a bent spiral or undulating pipe or pipes for the conveyance of excrement, urine, and water from closets or privies, whereby the liquid portion is caused to travel along the walls or surfaces of the pipes to a vessel below, and the solid portion to follow through the pipe or pipes, and subsequently to fall into a distinct and separate  
35 receiver below, all substantially as herein-before described and illustrated in the accompanying Drawing.

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Second. The construction of the basin *i* in combination with the hopper *e*, substantially as described.

In witness whereof, I, the said Adolphus Videky, have hereunto set my hand and seal, this Thirtieth day of November, in the year of our Lord One thousand eight hundred and seventy- 5  
one.

A. VIDEKY. (L.S.)

Witness,

EDW<sup>D</sup>. GRIFFITH BREWER,  
89, Chancery Lane,  
London.

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LONDON:

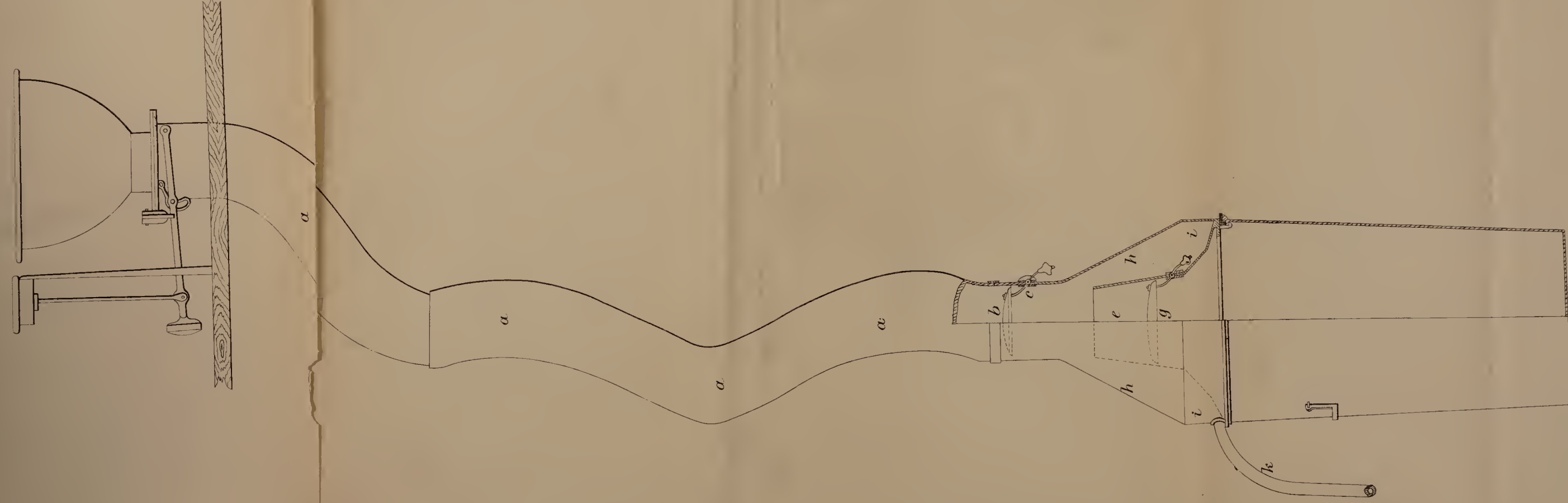
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Printers to the Queen's most Excellent Majesty. 1871.











*The filed drawing is not colored.*

Drawn on Stone by Malby & Sons

